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In the claims:

Please cancel claims 1, 6, 14, 16, 18, 21, 24, 34, 44, 56, 57, 61, 66, 74, 76, 78, 81, 84, 87, 94, 98, 104, 105, 108-110, 112, 116, 117 and 120-124 without prejudice or disclaimer to applicants' right to pursue the subject matter of these claims in a future continuation or divisional application.

Please amend claims 27, 38, 45, 48, 49, 50, 52 and 60 and add new claims 125-130 under the provisions of revised 37 C.F.R. §1.121 as follows.

--1. (currently cancelled) --

--2. - 5. (previously cancelled) --

--6. (currently cancelled) --

--7. - 13. (previously cancelled) --

--14. (currently cancelled) --

--15. (previously cancelled) --

--16. (currently cancelled) --

--17. (previously cancelled) --

--18. (currently cancelled) --

--19. - 20. (previously cancelled) --

--21. (currently cancelled) --

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--22. - 23. (previously cancelled) --

--24. (currently cancelled) --

--25. - 26. (previously cancelled) --

--27. (currently amended) [A purified MNR2] An isolated protein or fragment thereof encoded by an isolated nucleic acid or fragment thereof which encodes a homeobox motor neuron restricted pattern protein designated MNR2.--

--28. - 33. (previously cancelled) --

--34. (currently cancelled) --

--35. - 37. (previously cancelled) --

--38. (currently amended) A method of inducing differentiation of a somatic motor neuron[s] which comprises expressing [MNR2] the protein of claim 27 in a neural progenitor cell[s], so as to thereby induce differentiation of the somatic motor neuron.--

--39. - 43. (previously cancelled) --

--44. (currently cancelled) --

--45. (currently amended) A method of inducing differentiation of a somatic motor neuron[s] in a subject comprising administering to the subject the

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[purified MNR2] protein of claim 27 in an amount effective to induce differentiation of the somatic motor neuron[s], so as to thereby induce differentiation of the somatic motor neuron in the subject.--

--46. - 47. (previously cancelled) --

--48. (currently amended) A pharmaceutical composition comprising [a purified MNR2] the protein of claim 27 and a pharmaceutically acceptable carrier.--

--49. (currently amended) A method for treating a subject afflicted with an abnormality associated with a lack of one or more normally functioning motor neurons which comprises introducing an amount of the pharmaceutical composition of claim 48 effective to a generate somatic motor neuron[s] from an undifferentiated motor neuron precursor cell[s] in the subject, thereby treating the subject afflicted with the abnormality associated with the lack of one or more normally functioning motor neurons.--

--50. (currently amended) A method of treating a subject afflicted with a neurodegenerative disease which comprises introducing an amount of the pharmaceutical composition of claim 48 effective to generate a somatic motor neuron[s] from an undifferentiated precursor motor neuron cell[s] in the subject, thereby treating the subject afflicted with the neurodegenerative disease.--

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--51. (previously cancelled) --

--52. -- (currently amended) A method of treating a subject afflicted with an acute nervous system injury which comprises introducing an amount of the pharmaceutical composition of claim 48 effective to a generate motor neuron[s] from an undifferentiated precursor motor neuron cell[s] in [a] the subject, thereby treating the subject afflicted with the acute nervous system injury.--

--53. - 55. (previously cancelled) --

--56. - 57. (currently cancelled) --

--58. - 59. (previously cancelled) --

--60. (currently amended) A method of treating a subject afflicted with a neuromuscular disease which comprises introducing an amount of the pharmaceutical composition of claim 48 effective to activate acetylcholine to activate muscle cells, so as to thereby treat the subject afflicted with the neuromuscular disease.--

--61. (currently cancelled) --

--62. - 65. (previously cancelled) --

--66. (currently cancelled) --

--67. - 73. (previously cancelled) --

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--74. (currently cancelled) --

--75. (previously cancelled) --

--76. (currently cancelled) --

--77. (previously cancelled) --

--78. (currently cancelled) --

--79. - 80. (previously cancelled) --

--81. (currently cancelled) --

--82. - 83 (previously cancelled) --

--84. (currently cancelled) --

--85. - 86. (previously cancelled) --

--87. (currently cancelled) --

--88. - 93 (previously cancelled) --

--94. (currently cancelled) --

--95. - 97. (previously cancelled) --

--98. (currently cancelled) --

--99. - 103. (previously cancelled) --

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--104. - 105. (currently cancelled) --

--106. - 107. (previously cancelled) --

--108. - 110. (currently cancelled) --

--111. (previously cancelled) --

--112. (currently cancelled) --

--113. - 115. (previously cancelled) --

--116. - 117. (currently cancelled) --

--118. - 119. (previously cancelled) --

--120. - 124. (currently cancelled) --

--125. (new) The protein of claim 27, wherein the nucleic acid comprises consecutive nucleotides have a sequence which encodes the protein having the amino acid sequence set forth in SEQ ID NO: 1.--

--126. (new) An isolated protein comprising consecutive amino acids having the amino acid sequence set forth in SEQ ID NO: 1.--

--127. (new) The protein of claim 27, wherein the protein is a vertebrate protein.--

--128. (new) The protein of claim 127, wherein the protein is

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a chick, mouse, rat, or human protein.--

--129. (new) A monoclonal antibody directed to an epitope of  
the protein of claim 128.--

--130 (new) A polyclonal antibody directed to an epitope of  
the protein of claim 128.--